TABLE 54

Companies that reported business process innovation by industry and innovation R&D activity: 2016–18 (Number and percent)

Industry	NAICS code 11, 21-23, 31-33, 42-	Companies (number)	Innovation R&D activity  Number Percent					
			Yes	No	Yes	rcent No		
All industries	81	929,754	262,972	666,783	28.3	71.7		
Manufacturing industries	31-33	57,775	28,057	29,717	48.6	51.4		
Food	311	5,396	2,344	3,051	43.4	56.6		
Beverage and tobacco products	312	2,624	1,526	1,099	58.1	41.9		
Textile, apparel, and leather products	313-16	2,451	984	1,466	40.1	59.9		
Wood products	321	2,102	727	1,376	34.6	65.4		
Paper	322	631	221	408	35.2	64.8		
Printing and related support activities	323	4,814	1,257	3,556	26.1	73.9		
Petroleum and coal products	324	163	104	r 59	63.8	36.2		
Chemicals	325	2,459	1,788	670	72.8	27.2		
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	200	119	80	60.0	40.0		
Pharmaceuticals and medicines	3254	536	385	150	72.0	28.0		
Soap, cleaning compound, and toilet preparation manufacturing	3256	531	390	140	73.6	26.4		
Other chemicals	other 325	1,193	895	299	74.9	25.1		
Plastics and rubber products	326	2,554	1,318	1,237	51.6	48.4		
Nonmetallic mineral products	327	1,634	575	1,058	35.2	64.8		
Primary metals	331	699	244	456	34.9	65.1		
Fabricated metal products	332	11,797	5,601	6,197	47.5	52.5		
Machinery	333	5,821	3,694	2,126	63.5	36.5		
Computer and electronic products	334	2,902	2,036	865	70.2	29.8		
Communications equipment	3342	370	2,030	78	78.9	21.1		
Semiconductor and other electronic components	3344	990	581	409	58.7	41.3		
Navigational, measuring, electromedical, and control	3344	990	361	409	36.7	41.3		
instruments	3345	1,177	938	240	79.6	20.4		
Other computer and electronic products	other 334	367	229	137	62.7	37.3		
Electrical equipment, appliances, and components	335	1,222	814	409	66.5	33.5		
Transportation equipment	336	1,793	1,073	721	59.8	40.2		
Automobiles, bodies, trailers, and parts	3361-63	1,107	643	463	58.2	41.8		
Aerospace products and parts	3364	264	190	75	71.6	28.4		
Other transportation	other 336	424	242	181	57.3	42.7		
Furniture and related products	337	2,867	1,093	1,775	38.1	61.9		
Miscellaneous	339	5,835	2,659	3,176	45.6	54.4		
Medical equipment and supplies	3391	2,449	1,148	1,302	46.9	53.1		
Other miscellaneous manufacturing	3399	3,387	1,513	1,873	44.7	55.3		
Nonmanufacturing industries	11, 21-23, 42-81	871,980	234,914	637,064	26.9	73.1		
Agriculture, forestry, fishing, and hunting	11	2,812	444	2,369	15.8	84.2		
Mining, extraction, and support activities	21	1,323	211	1,113	15.9	84.1		
Utilities	22	437	96	340	22.0	78.0		
Construction	23	84,810	19,303	65,506	22.8	77.2		
Wholesale trade	42	61,477	19,333	42,144	31.4	68.6		
Retail trade	44-45	115,299	27,813	87,487	24.1	75.9		
Transportation and warehousing	48-49	32,288	4,614	27,673	14.3	85.7		
Information	51	17,517	9,002	8,513	51.4	48.6		
Publishing	511	5,632	3,337	2,293	59.3	40.7		
Newspaper, periodical, book, and directory publishers	5111	2,154	770	1,383	35.7	64.3		
Software publishers	5112	3,477	2,566	912	73.8	26.2		

TABLE 54

Companies that reported business process innovation by industry and innovation R&D activity: 2016–18 (Number and percent)

ndustry	NAICS code	Companies	Innovation R&D activity					
			Number				Percent	
		(number)	Yes		No		Yes	No
Telecommunications	517	1,984	722		1,263		36.4	63.6
Data processing, hosting, and related services	518	3,256	2,023		1,232		62.2	37.8
Other information	other 51	6,646	2,921		3,726		44.0	56.0
Finance and insurance	52	39,923	10,190		29,733		25.5	74.5
Real estate and rental and leasing	53	38,262	6,916		31,347		18.1	81.9
Lessors of nonfinancial intangible assets (except copyrighted works)	533	257	145	r	113	r	56.0	44.0
Other real estate and rental and leasing	other 53	38,004	6,772		31,234		17.8	82.2
Professional, scientific, and technical services	54	150,463	56,759		93,704		37.7	62.3
Legal services	5411	18,535	3,857		14,679		20.8	79.2
Accounting, tax preparation, bookkeeping, and payroll services	5412	17,647	2,743		14,905		15.5	84.5
Architectural, engineering, and related services	5413	17,819	7,550		10,270		42.4	57.6
Specialized design services	5414	5,774	2,391		3,384		41.4	58.6
Computer systems design and related services	5415	33,191	17,125		16,067		51.6	48.4
Management, scientific, and technical consulting services	5416	34,721	14,290		20,430		41.2	58.8
Scientific research and development services	5417	2,974	2,559		416		86.0	14.0
Advertising, public relations, and related services	5418	7,126	2,338		4,787		32.8	67.2
Other professional, scientific, and technical services	5419	12,678	3,908		8,769		30.8	69.2
Management of companies and enterprises	55	414	151		264		36.5	63.5
Administrative and support and waste management and remediation services	56	53,717	13,082		40,634		24.4	75.6
Educational services	61	14,568	5,560		9,009		38.2	61.8
Health care and social assistance	62	96,291	23,292		72,998		24.2	75.8
Health care services	621-23	83,166	19,326		63,841		23.2	76.8
Social assistance	624	13,124	3,966		9,156		30.2	69.8
Arts, entertainment, and recreation	71	14,559	4,551		10,009		31.3	68.7
Accommodation and food services	72	91,077	20,319		70,759		22.3	77.7
Other services	81	56,736	13,277		43,460		23.4	76.6

r = relative standard error > 50%.

NAICS = 2017 North American Industry Classification System.

## Note(s):

Detail may not add to total because of rounding. Innovation R&D activity is based on unedited company responses to innovation questions, not R&D expenditures. Statistics are representative of companies located in the United States.

## Source(s):

National Center for Science and Engineering Statistics and Census Bureau, 2019 Annual Business Survey: Data Year 2018.